REMARKS/ARGUMENTS

The Office Action mailed June 21, 2004 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Claim Status and Amendment to the Claims

Claims 1-42 are now pending.

Claims 13-30 have been withdrawn from consideration as the result of an earlier restriction requirement.

Claim 4 has been amended to make minor typographical corrections. The text of claim 5 is unchanged, but its meaning is changed because it depends from amended claim 4.

In view of the Examiner's earlier restriction requirement, the Applicant retains the right to present claims 13-30 in a divisional Application.

Regarding Amendments

The specification and claim 4 have been amended to correct minor errors. These corrections are of a clerical nature and do not add "new matter".

New claims 31-42 have been added, which also particularly point out and distinctly claim subject matter regarded as the invention. Claims 31-33 recite a serial data bus remote host control driver and find support in the specification at page 8 lines 7-18, and FIGS. 1 (reference numeral 16) and 3. Claims 34-35 recite a serial data bus device adapter and find support in the specification at page 8 line 7 to p. 9 line 13, and FIGS. 1 (reference numeral 16) and 3. Claims 36-42 recite an Internet gateway and find support in the specification at page 8 lines 9-18, page 18 lines 1-17, and FIGS. 1 and 7.

Objection to Drawing(s)

The Examiner has required new corrected drawings because the drawings are hand drawn figures. New corrected drawings are submitted herewith. Withdrawal of the objection is respectfully requested.

The 35 U.S.C. § 102 Rejection

Claims 1-12 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by

McAlear[1].[2] This rejection is respectfully traversed.

According to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102(e) only if each

and every element as set forth in the claim is found, either expressly or inherently described, in a

single prior art reference.[3]

Claim 1

Claim 1 recites:

A universal serial bus (USB) remote host control driver, comprising:
a connection to a network, said network further connecting to one or more USB device
    adapters, each of said device adapters having a discrete network address;
a network protocol stack, said protocol stack for encapsulating USB packets in network
    packets and for decapsulating USB packets from network packets; and
a memory for storing the network address of each of said device adapters and for storing
    an identification of each USB device connected to each of said device adapters.

The Examiner states:

... McAlear shows a local network for integrating USB connectivity in existing networks
in order to allow access to USB devices from network devices (see abstract and col. 9
lines 19-27).

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[1] U.S. Patent No. 6,697,372 to McAlear.
[2] Office Action dated June 21, 2004, p. 2.
[3] Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*,
814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

McAlear shows a remote host control driver for USB devices (see fig. 7, LAN hub 10, col. 72 lines 60- col. 73 line 2).
o A connection to a network (LAN link), said network further connecting to one or more USB device adapters (80), each of said device adapters having discrete network address (col.21 lines 14-20, col. 23 lines 39-46).
o A network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets (col. 22 lines 58-66); and
o A memory for storing the network address of each of said device adapters and for storing an identification of each USB device (100) connected to each of said device adapters (col. 32 lines 32-45, fig. 20).[4]

The Applicant respectfully disagrees for the reasons set forth below.

Contrary to the Examiner's statement, McAlear does not disclose a remote host control driver comprising a memory for storing the network address of each of said device adapters. In support of the contention that McAlear discloses storing the network address of each of said device adapters, the Examiner refers FIG. 20 and col. 32 lines 32-45 in McAlear. However, FIG. 20, shows port addresses and addresses of USB devices, not device adapters. And the text pointed to by the Examiner recites:

> In addition to the functions above, the LAN hub 10 performs a number of other duties. FIG. 21 shows a Device Endpoint Description & Service Interval Table utilized by the LAN hub 10. The LAN hub 10 maintains the Device Endpoint Description & Service Interval Table for every USB device 100, 180 indicating the LAN link number (or line) for the LAN link 90, 120, 170 or 250 associated with each USB device 100, 180, the assigned USB device address for each USB device 100, 180, the end point numbers for

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[4] Office Action pp. 3-4.

each USB device 100, 180, the buffer size for the end point, the type of transaction for the end point, the buffer location for the end point in RAM 360 (if assigned) and for end points handling isochronous/interrupt transactions, the timing schedule.[5]

Furthermore, the LAN links referred to in the passage cited above refer to *dedicated* links, not a more complex network. McAlear states:

> Compared to the way the LAN hub 10 communicates with the network 20 using a conventional network protocol, the LAN hub 10 communicates with the outer hubs in a similar but simpler way since the connections to the outer hubs are *dedicated links, not a more complex network.* A single transaction at a time is transmitted from the LAN hub 10 over the LAN link associated with the outer hub and then through to the USB device.[6]

Thus, the link number disclosed in McAlear is merely the number of a dedicated link. And since it is merely a dedicated link, McAlear cannot be said to disclose a remote host control driver connected to a network, as the claim requires the same network further connect one or more USB devices.

Also contrary to the Examiner's statement, McAlear does not disclose a USB remote host control driver comprising a network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets. The protocol used for communicating between the LAN hub and the end hub in McAlear is actually a

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[5] McAlear col. 32 lines 32-45.
[6] McAlear col. 23 lines 39-46.

variant of the USB protocol. USB packets in <u>McAlear</u> are encapsulated for communication over the dedicated link referred to above using a variant of the USB protocol, which is not a network standard. <u>McAlear</u> states:

> As mentioned earlier, the LAN protocol used for communications on each LAN link 90 (or LAN link 170) is a *variant of the USB protocol*. A preferred variant of the USB protocol is a layered protocol with a physical layer and a data link layer. According to preferred embodiment of the present invention, FIGS. 10A, B, C, D, E, G, H, I illustrate the preferred *variant of the USB protocol*. The physical layer implements line markers 722 at the start of each LAN packet 724. The physical layer may also implement optional stuff symbols 726. When there is no activity on the LAN link 90, the physical layer also implements an idle line 728. The LAN packets are sent within frames. The preferred variant of the USB protocol also provides for start of frame LAN packets. The LAN hub 10 sends the start of frame LAN packets every one millisecond (the "framing time"). The start of frame LAN packets provide framing markers at the beginning of each frame.[7]

For the above reasons, the 35 U.S.C. § 102 rejection of claim 1 is unsupported by the art and must be withdrawn.

Dependent Claims 2-3

Claims 2 and 3 depend from claim 1. Claim 1 being allowable, claims 2 and 3 must be allowable for at least the same reasons.

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[7] <u>McAlear</u> col. 23 lines 47-63. (emphasis added)

Claim 4

Claim 4 as amended recites:

A universal serial bus (USB) device adapter comprising:
one or more USB ports;
a connection to a network, said network connected to a USB remote host control driver;
a network address; and
a network protocol stack, said protocol stack for encapsulating USB packets in network
    packets and for decapsulating USB packets from network packets.

The Examiner states:

... McAlear shows a USB device adapter (end hub 80) comprising
o One or more USB ports (col. 15 lines 7-13, fig. 7, 82)
o A connection to a network (LAN link 90), said network connected to a USB remote
host (10) control driver (col. 15 lines 7-9)
o A network address (col. 21 lines 14-20)
o A network protocol stack, said protocol stack for encapsulating USB packets in
network packets and for decapsulating USB packets from network packets (col. 22 lines
58-66).[8]

The Applicant respectfully disagrees for the reasons set forth below.

The arguments made above with respect to claim 1 apply here as well. Specifically,

contrary to the Examiner's statement, McAlear does not disclose a USB device adapter

comprising a connection to a network because the LAN hub-to-end hub connection disclosed in

McAlear is a dedicated connection using a variant of the USB protocol. And McAlear does not

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[8] Office Action p. 4.

disclose a USB device adapter comprising a network address because the link number disclosed in <u>McAlear</u> is merely the number of a dedicated link. And <u>McAlear</u> does not disclose a USB device adapter comprising a network protocol stack, said stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets because the protocol used for communicating between the LAN hub and the end hub in <u>McAlear</u> is actually a variant of the USB protocol.

For the above reasons, the 35 U.S.C. § 102 rejection of claim 4 is unsupported by the art and must be withdrawn.

<u>Dependent Claim 5</u>

Claim 5 depends from claim 4. Claim 4 being allowable, claim 5 must be allowable for at least the same reasons.

<u>Claim 6</u>

Claim 6 recites:

An Internet gateway, comprising:
a connection to the Internet; and
a universal serial bus (USB) remote host control driver, said USB remote host control
    driver having:

(a) a connection to a local network, said local network further connecting to one or more USB device adapters, each of said device adapters having a discrete network address;

(b) a local network protocol stack, said protocol stack for encapsulating USB packets in local network packets and for decapsulating USB packets from local network packets;

(c) a memory for storing the network address of each of said device adapters and for storing an identification of each USB device connected to each of said device adapters; and

(d) a polling routine, said polling routine contacting each of said device adapters, identifying each of said USB devices, and storing the identifications in said memory.

The Examiner states:

... McAlear shows and Internet gateway (10) connected to the Internet (col. 20 lines 59-64); and
A USB remote host control driver (see fig. 7, LAN hub 10, col. 72 lines 60- col. 73 line
A connection to a network (LAN link), said network further connecting to one or more USB device adapters (80), each of said device adapters having discrete network address (col.21 lines 14-20, col. 23 lines 39-46).
A local network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets (col. 22 lines 58-66); and
A memory for storing the network address of each of said device adapters and for storing an identification of each USB device (100) connected to each of said device adapters (col. 32 lines 32-45, fig. 20).
A polling routine for contacting each of said device adapters (80) and identifying each of the said USB devices, and storing the identification in memory (col. 31 lines 1-14).[9]

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[9] Office Action pp. 4-5.

The Applicant respectfully disagrees for the reasons set forth below.

The arguments made above with respect to claim 1 apply here as well. Specifically, contrary to the Examiner's statement, McAlear does not disclose an Internet gateway comprising a USB device adapter having a connection to a local network because the LAN hub-to-end hub connection disclosed in McAlear is a dedicated connection using a variant of the USB protocol. Consequently the device adapters cannot be said to have a discrete network address because a network address because the link number disclosed in McAlear is merely the number of a dedicated link. And McAlear does not disclose an Internet gateway comprising a USB remote host control driver having a local network protocol stack, said stack for encapsulating USB packets in local network packets and for decapsulating USB packets from local network packets because the protocol used for communicating between the LAN hub and the end hub in McAlear is actually a variant of the USB protocol. Furthermore, McAlear does not disclose an Internet gateway comprising a USB remote host control driver having a memory for storing the network address of each device adapter because the link number disclosed in McAlear is merely the number of a dedicated link.

For the above reasons, the 35 U.S.C. § 102 rejection of claim 6 is unsupported by the art and must be withdrawn.

Dependent Claims 7-12

Claims 7-12 depend from claim 6. Claim 6 being allowable, claims 7-12 must be

allowable for at least the same reasons.

Claims 11

Claim 11 recites:

The Internet gateway of claim 8, further comprising:
a connection to a public television cable.

The Examiner states:

In referring to claim 9-12, McAlear shows connections to a variety of USB devices,
included in the scope of these devices are: local video monitor, local telephone, television
and telephone (col. 1 lines 58-64).[10]

The Applicant respectfully disagrees for the reasons set forth below.

Contrary to the Examiner's statement, McAlear does not disclose an Internet gateway of

claim 8, further comprising a connection to a public television cable. The Examiner provides a

specific reference, but such a limitation is not found at the specific reference. The Applicant

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[10] Office Action p. 5.

hereby traverses the Examiner's statement and requests that a reference be cited in support of the position outlined in the Office Action.

For the above reasons, the 35 U.S.C. § 102 rejection of claim 11 is unsupported by the art and must be withdrawn.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.
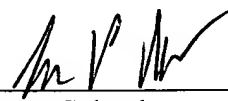
Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited. If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Please charge any additional required fee or credit any overpayment not otherwise paid or

credited to our deposit account No. 50-1698.

Respectfully submitted,

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Dated: September 21, 2004

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